Install Drivers

Install Programs

Natural Color

SyncMaster 710MP

Please read the following safety instructions as they are designed to prevent damage to property and harm to the user.

Notational

Warning / Caution

Failure to follow directions noted by this symbol could result in bodily harm or damage to equipment.

Notational Conventions

Prohibited

Important to read and understand at all times

Do not disassemble

Disconnect the plug from the outlet

Do not touch

Grounding to prevent an electric shock

Power

When not used for extended period of time, set your computer to DPMS.
If using a screen saver, set it to the active screen mode.

Shortcut to Anti-Afterimage Instructions

Do not use a damaged or loose plug.

- This may cause an electric shock or fire.

Do not pull the plug out by the wire nor touch the plug with wet hands.

- This may cause an electric shock or fire.

Use only a properly grounded plug and receptacle.

- An improper ground may cause electric shock or equipment damage.

Insert the power plug firmly so that it does not come loose.

- A bad connection may cause fire.

Do not excessively bend the plug and wire nor place heavy objects upon them, which could cause damage.

- This may cause an electric shock or fire.

Do not connect too many extension cords or plugs to an outlet.

- This may cause fire.

Installation

Be sure to contact an authorized Service Center when installing your set in a location with heavy dust, high or low temperatures, high humidity, and chemical substances, or where it will be operated for 24 hours continuously such as an airport, train station or etc.

Failure to do so may cause serious damage to your set.

Put your monitor in a location with low humidity and a minimum of dust.

- Failure to do so may cause an electric shock or fire inside the monitor.

Do not drop the monitor when moving it.

- This may cause damage to the product or human body.

Install the monitor base in a showcase or shelf so that the end of the base does not project beyond the showcase or shelf.

- Dropping the product may cause damage to the product or personal injury.

Do not place the product on an unstable or small surface area.

- Place the product on an even, stable surface, as the product may fall and cause harm to someone walking by, specifically children.

Do not place the product on the floor.

- Someone, specifically children could trip over it.

Keep any flammable objects such as candles, insecticides or cigarettes away from the product.

- Otherwise, this may cause a fire.

Keep any heating devices away from the power cable.

- A melted coating may lead to electric shock or fire.

Do not install the product in places with poor ventilation, for instance, a bookshelf, closet, etc.

- Any increase in internal temperature may cause fire.

Set down the monitor carefully.

- The monitor could be damaged or broken.

Do not place the monitor face down.

- The TFT-LCD surface may be damaged.

Installing a wall bracket must be done by a qualified professional.

- Installation by unqualified personnel may result in injury.
- Always use the mounting device specified in the owner's manual.

When installing the product, make sure to keep it away from the wall (more than 10cm/4inch) for ventilation purposes.

- Poor ventilation may cause an increase in the internal temperature of the product, resulting in a shortened component life and degraded performance.

To prevent rainwater from running along the outdoor antenna cable and entering the house, be sure the outdoor portion of the cable hangs down below the point of entry.

- If rainwater enters the product, it may cause an electric shock or fire.

If you are using an outdoor antenna, be sure to put sufficient distance between your antenna and the electrical wires nearby so that they would not come in contact with each other in case the antenna is knocked over by strong wind.

- A knocked-over antenna may cause injury or an electric shock.

Clean

When cleaning the monitor case or the surface of the TFT-LCD screen, wipe with a slightly moistened, soft fabric.

Do not spray water or detergent directly on the monitor.

- This may cause damage, electric shock or fire.

Use the recommended detergent with a smooth cloth.

If the connector between the plug and the pin is dusty or dirty, clean it properly with a dry cloth.

- A dirty connector may cause an electric shock or fire.

Make sure to unplug the power cord before cleaning the product.

- Otherwise, this may cause electric shock or fire.

Unplug the power cord from the power outlet and wipe the product using a soft, dry cloth.

- Do not use any chemicals such as wax, benzene, alcohol, thinners, insecticide, air freshener, lubricant or detergent.

Contact the Service Center or Customer Center for interior cleaning once a year.

- Keep the product's interior clean. Dust which has accumulated in the interior over an extended period of time may cause malfunction or fire.

Others

Do not remove cover (or back).

- This may cause an electric shock or fire.
- Refer servicing to qualified service personnel.

If your monitor does not operate normally - in particular, if there are any unusual sounds or smells coming from it - unplug it immediately and contact an authorized dealer or service.

- This may cause an electric shock or fire.

Keep the product away from places exposed to oil, smoke or moisture; do not install inside a vehicle.

- This may cause malfunction, an electric shock or fire.
- Especially avoid operating the monitor near water or outdoors where the monitor could be exposed to snow or rain.

If the monitor is dropped or the casing is damaged, turn the monitor off and unplug the power cord. Then contact the Service Center.

- The monitor may malfunction, causing an electric shock or fire.

Disconnect the plug from the outlet during storms or lightening or if it is not used for a long period of time.

- Failure to do so may cause an electric shock or fire.

Do not try to move the monitor by pulling only the wire or the signal cable.

- This may cause a breakdown, electric shock or fire due to damage to the cable.

Do not move the monitor right or left by pulling only the wire or the signal cable.

- This may cause a breakdown, electric shock or fire due to damage to the cable.

Do not cover the vents on the monitor cabinet.

- Bad ventilation may cause a breakdown or fire.

Do not place water containers, chemical products or small metal objects on the monitor.

- This may cause malfunction, an electric shock or fire.
- If a foreign substance enters the monitor, unplug the power cord and contact the Service Center .

Keep the product away from combustible chemical sprays or inflammable substances.

- This may cause an explosion or fire.

Never insert anything metallic into the monitor openings.

- This may cause an electric shock, fire or injury.

Do not insert metal objects such as chopsticks, wire and gimlet or inflammable objects such as paper and match into the vent, headphone port or AV ports.

- It may cause a fire or an electric shock. If an alien substances or water flows into the product, turn the product off, unplug the power connector from the wall outlet and contact Service Center.

If you view a fixed screen for an extended period of time, residual image or blurriness may appear.

- Change the mode to energy save or set a screensaver to moving picture when you need to be away from the monitor for an extended period of time.

Adjust the resolution and frequency to the levels appropriate for the model.

- Inappropriate resolution may cause undesirable picture quality.

  17 inch - 1280 X 1024

Keep the volume at a proper level when you use the headphones.

- Excessively loud volume levels may damage hearing.

Watching the monitor continuously at a too close angle may result in eyesight damage.

To ease eye strain, take at least a five-minute break after every hour of using the monitor.

Do not install the product on an unstable, uneven surface or a location prone to vibrations.

- Dropping the product may cause damage to the product or personal injury. Using the product in a location prone to vibrations may shorten the lifetime of the product or may catch fire.

When moving the monitor, turn off and unplug the power cord.
Make sure that all cables, including the antenna cable and cables connected to other devices, are disconnected before moving the monitor.

- Failure to disconnect a cable may damage it and lead to fire or an electric shock.

Place the product out of children's reach, as they could damage it by hanging onto it.

- A falling product could cause physical damage even death.

When not using the product for an extended time period, keep the product unplugged

- Otherwise, this may cause heat emission from the accumulated dirt or degraded insulation, leading to electric shock or fire.

Do not place children's favorite objects (or anything else that may be tempting) on the product.

- Children may try to climb on the product to retrieve an object. The product could fall, causing physical damage or even death.

When you remove batteries from the remote control, be careful that they are not swallowed by children. Keep batteries out of the reach of children.

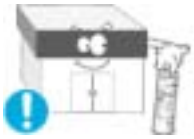
- If swallowed, see a doctor immediately.

When replacing batteries, place the batteries in the correct +/- polarity position as indicated on battery holder.

- Incorrect polarity may cause a battery to break or leak and could lead to fire, injury, or contamination (damage).

Use only specified standard batteries. Do not use new and used batteries together.

- This may cause a battery to break or leak and could lead to fire, injury, or contamination (damage).



The battery (and rechargeable battery) are not ordinary refuse and must be returned for recycling purposes.
The customer is responsible for returning the used or rechargeable battery for recycling purposes as the consumer of the battery.

- The customer can return the used or rechargeable battery to a nearby public recycling center or to a store selling the same type of the battery or rechargeable battery.

Please make sure the following items are included with your monitor.
If any items are missing, contact your dealer.
Contact a local dealer to buy optional items.

Unpacking

Monitor

Manual

Quick Setup Guide

Warranty Card
(Not available in all locations)

User's Guide, Monitor Driver, Natural Color software

Cable

D-Sub Cable

Power Cord

Audio Cable

Others

Remote Control
This remote control is used in China only.

Remote Control
This remote control is used in all countries except for China.

Batteries (AAA X 2)

Front

1. SOURCE	2. MagicBright™	3. AUTO / EXIT	4. CH	5. VOL
6. MENU	7. Power button	8. Power indicator	9. Remote Control Sensor	10. Speaker

1. **SOURCE**
   Switches from PC mode to Video mode.
   Changing the source is allowed only in external devices that are connected to the monitor at the time.
   To switch Screen modes:
   [PC] → [TV] → [AV] → [S-Video]
   >>Click here to see an animation clip
   For more information > Broadcasting Systems
2. **MagicBright™**
   MagicBright™ is a new feature providing the optimum viewing environment depending on the contents of the image you are watching.
   Then push button again to circle through available preconfigured modes.
   (Entertain → Internet → Text → Custom)
   >>Click here to see an animation clip
   - Available in PC Mode only
3. **AUTO / EXIT**
   AUTO : Adjusts the screen display automatically.
   >>Click here to see an animation clip
   - Available in PC Mode only
   EXIT : Exits from the menu screen.
4. **CH**
   Moves from one menu item to another vertically or adjusts selected menu values.
   In TV mode, selects TV channels.
   >>Click here to see an animation clip
5. **VOL**
   Moves from one menu item to another horizontally or adjusts selected menu values.
   Adjusts the audio volume.
   >>Click here to see an animation clip
6. **MENU**
   Use this button to open the on-screen menu and step back in the menu.
7. **Power button**
   Use this button to turn the monitor on and off.
8. **Power indicator**
   Power Indicator shows PowerSaver mode by green blinking.
9. **Remote Control Sensor**
   Aim the remote control towards this spot on the Monitor.
10. **Speaker**
    You can hear sound by connecting the soundcard of your PC to the monitor.

See PowerSaver described in the manual for further information regarding power saving functions. For energy conservation, turn your monitor OFF when it is not needed or when leaving it unattended for long periods.

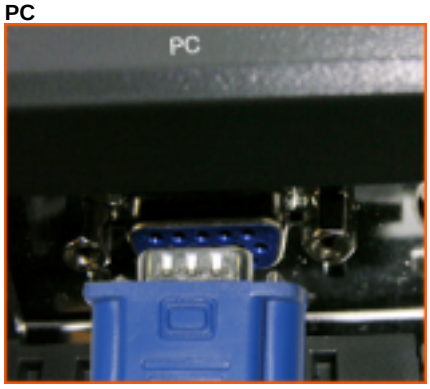
Rear

(The configuration at the back of the monitor may vary from product to product.)

1. **POWER-IN**

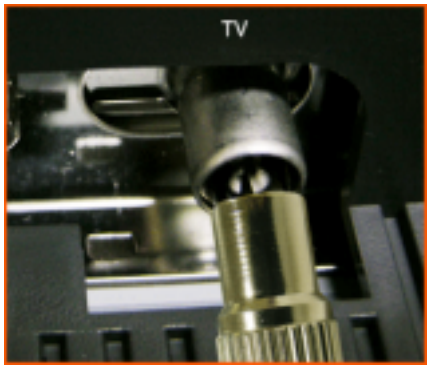
This product may be used with 100 ~ 240VAC(+/- 10%).

2. **PC**



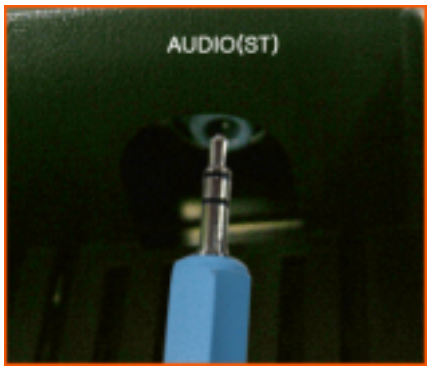
Computer Connection Terminal (15 Pin D-SUB)

3. **TV**



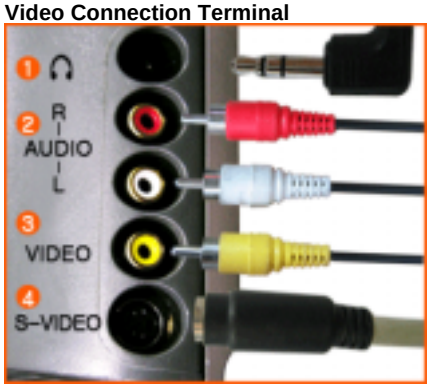
TV Connection Terminal
For more information > Connecting TV

4. **AUDIO(ST)**



Audio Connection Terminal

5. **Video Connection Terminal**

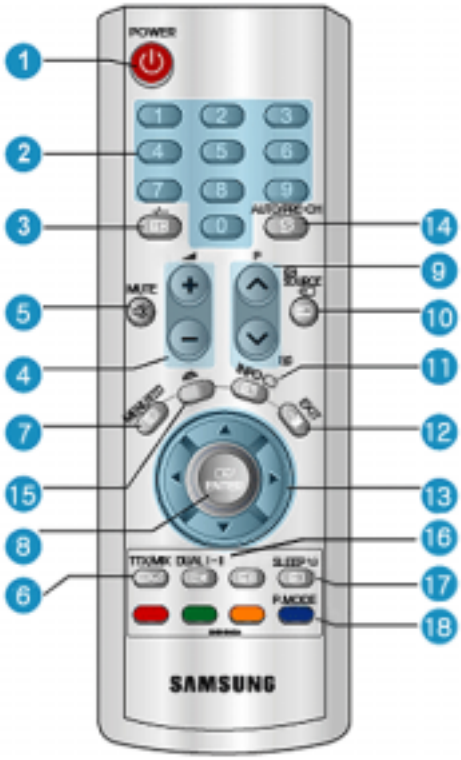


1. Headphone Connection Terminal (Output)
2. Left(L) / Right(R) Audio Connection Terminal (Input)
3. Video Connection Terminal (Input)
4. S-Video Connection Terminal (Input)

See Connecting the Monitor for further information regarding cable connections.

Remote Control

The performance of the remote control may be affected by a TV or other electronic devices operated near the monitor, causing malfuction due to interference with frequency.



1. **POWER**
2. **number**
3. **-/--**
4. **(Volume)**
5. **MUTE**
6. **TTX/MIX**
7. **MENU**
8. **ENTER**
9. **P**
10. **SOURCE**
11. **INFO**
12. **EXIT**
13. **Up-Down Left-Right Buttons**
14. **AUTO / PRE-CH**
15. **(MagicBright™)**
16. **DUAL I - II**
17. **SLEEP**
18. **P.MODE**

1. **POWER**
   Use this button to turn the monitor on and off.

2. **number**
   Selects TV channels in the TV mode. You may use this button in PIP mode as well.

3. **-/-- (One/Two-Digit CHANNEL selection)**
   Use to select a CHANNEL numbered ten or over.
   Press this button, and the "--" symbol is displayed.
   Enter the two-digit CHANNEL number.

4. **(Volume)**
   Adjusts the audio volume.

5. **MUTE**
   Pauses (mutes) the audio output temporarily.
   Displays on the lower left corner of the screen.
   The audio resumes if Mute or (Volume) is pressed in the Mute mode.

6. **TTX/MIX**
   TV channels provide written information services via teletext.
   For more information > TTX / MIX

7. **MENU**
   Use this button to open the on-screen menu and step back in the menu.

8. **ENTER**
   Activates a highlighted menu item.

9. **P**
   In TV mode, selects TV channels.

10. **SOURCE**
    Switches from PC mode to Video mode.
    Changing the source is allowed only in external devices that are connected to the monitor at the time.
    [PC] → [TV] → [AV] → [S-Video]

11. **INFO**
    Current picture information is displayed on the upper left corner of the screen.

12. **EXIT**
    Exits from the menu screen.

13. **Up-Down Left-Right Buttons**
    Moves from one menu item to another horizontally, vertically or adjusts selected menu values.

14. **AUTO / PRE-CH**
    PC mode : Adjusts the screen display automatically.
    TV mode : This button is used to return to the previous channel immediately.

15. **(MagicBright™)**
    PC Mode :
    MagicBright™ is a new feature providing the optimum viewing environment depending on the contents of the image you are watching.
    Then push button again to circle through available preconfigured modes.
    (Entertain → Internet → Text → Custom)

16. **DUAL I - II**
    STEREO / MONO can be operated depending on broadcasting type by using DUAL button on the remote control while watching TV.

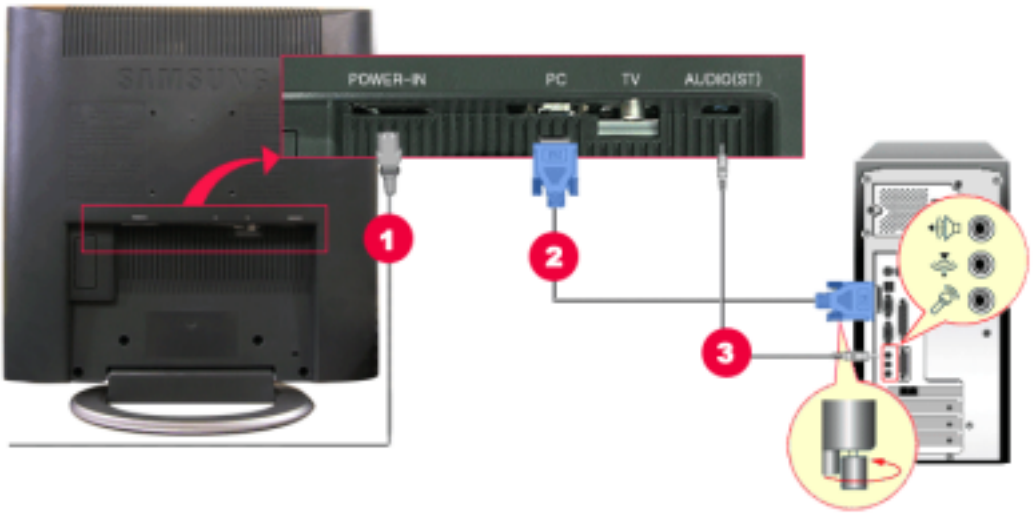
17. **SLEEP**
    Use to set the Monitor to turn off automatically a set number of minutes

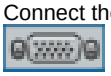
18. **P.MODE**
    When you press this button, current mode is displays on the lower center of the screen.

    TV / AV / S-Video Mode :
    The Monitor has four automatic picture settings that are preset at the factory.
    Then push button again to circle through available preconfigured modes.
    (Dynamic → Standard → Movie → Custom)

Connecting the Monitor

1. Connecting to a Computer



1. Connect the power cord for your monitor to the power port on the back of the monitor.
   Plug the power cord for the monitor into a nearby outlet.
2. Using the D-sub (Analog) connector on the video card.
   Connect the signal cable to the 15-pin, D-sub connector on the back of your monitor.
   
3. Connect the audio cable for your monitor to the audio port on the back of your computer.
4. Turn on both your computer and the monitor.

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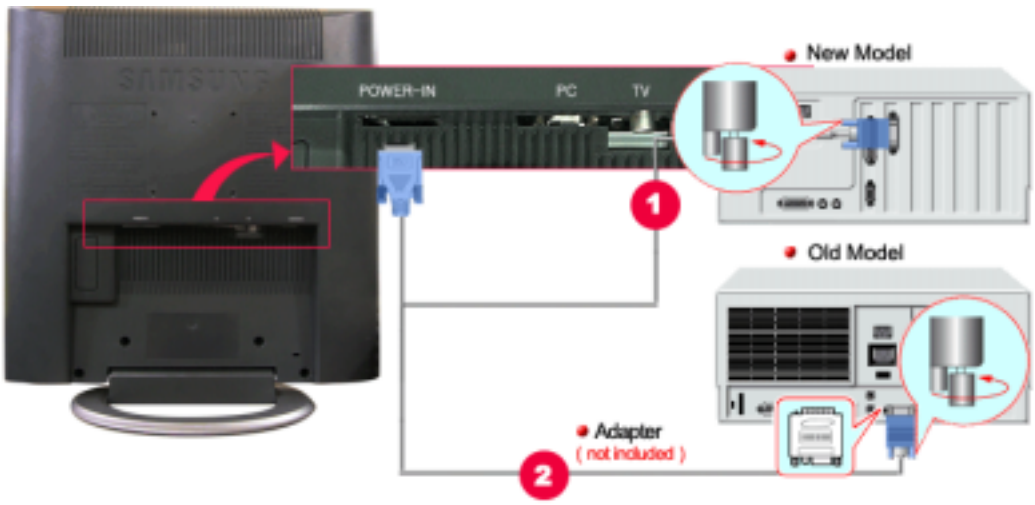
2. Connecting to a Macintosh



1. Using the D-sub (Analog) connector on the video card.
   Connect the signal cable to the D-SUB port on the Macintosh computer.

2. For old model Macintoshes, you need to adjust the resolution control DIP switch on the Macintosh adapter (optional) referring to the switch configuration table shown on its rear.
3. Turn on the monitor and Macintosh.

Connecting to Other Devices

This monitor allows the user to connect it to such input devices as a DVD player, a VCR or a camcorder, or a DTV or a TV without disconnecting the PC.
For detailed information on connecting AV input devices, refer to User Controls under Adjusting your monitor.

The configuration at the back of the monitor may vary from product to product.

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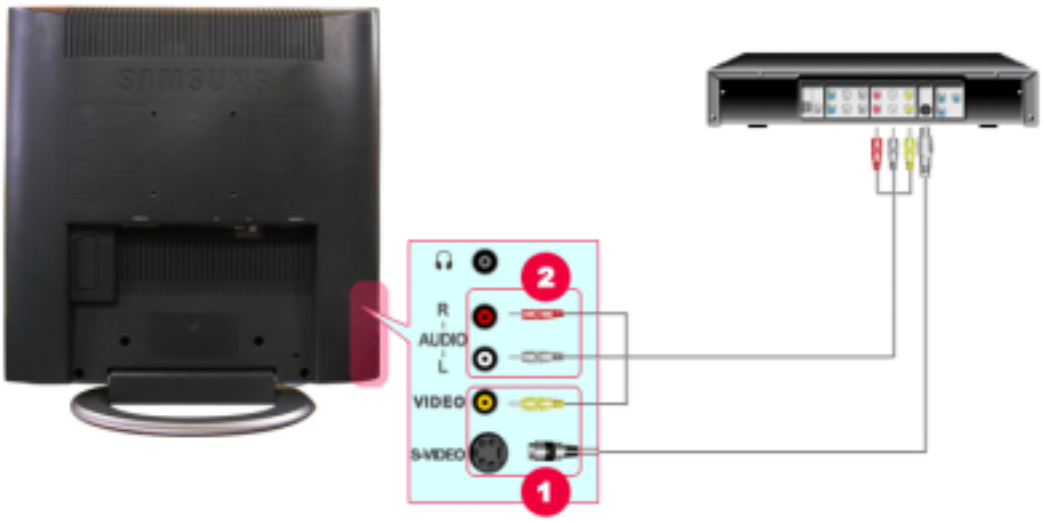
1. Connecting AV Devices

The monitor has AV connection terminals to connect AV input devices like DVD, VCR or Camcorder. You may enjoy AV signals as long as the monitor is turned on.



1. Input devices such as DVD, VCR or Camcorder are connected to the Video or S-Video output terminal of the monitor using the S-Video cable.

   S-Video cable is optional.

2. Connect the Audio (R) and Audio (L) output terminals of a DVD, VCR or Camcorders to the monitor's R and L audio input terminals using audio cables.
3. Then, start the DVD, VCR or Camcorders with a DVD disc or tape inserted.
4. Select AV or S-Video using the **SOURCE** button.

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2. Connecting TV

You may view television programs on the monitor if it is connected to an antenna or a CATV cable without installing any separate TV reception hardware or software on your computer.

1. Connect the CATV or antenna coaxial cable to the Antenna terminal on the rear of the monitor. You need to use a coaxial antenna cable.
   - **When using an interior antenna terminal:**
     Check the antenna terminal on the wall first and connect the antenna cable.
   - **When using an outdoor antenna:**
     If you are using an outdoor antenna, use a professional for installation if possible.
   - **To connect the RF cable to the antenna input terminal:**
     Keep the copper wire portion of the RF cable straight.
2. Turn on the monitor.
3. Select TV using **SOURCE** button among the external signal adjustment buttons.
4. Select a desired TV channel after channel search.

---

3. Connecting Headphone

You may connect your Headphone to the monitor.

1. Connect your Headphone to the Headphone connection terminal.

Using the Stand

This monitor supports various types of VESA-standard bases. You need to either fold or remove the base in use in order to install a VESA base.

1. Folding the Base

The monitor may be reclined from 0 to 19 degrees.

2. Attaching the Base

This monitor accepts a 75 mm x 75 mm VESA-compliant mounting interface pad.

A. Monitor

B. Mounting interface pad

1. Turn off your monitor and unplug its power cord.
2. Lay the LCD monitor face-down on a flat surface with a cushion beneath it to protect the screen.
3. You should fold the stand 90 degrees per fectly.
4. Align the Mounting Interface Pad with the holes in the Rear Cover Mounting Pad and secure it with four screws that came with the arm-type base, wall mount hanger or other base.

To mount the monitor on a wall, you should purchase the wall mounting kit that allows you to mount the monitor at least 10cm away from the wall surface. Contact the nearest Samsung Service Center for more information.
Samsung Electronics will not be responsible for damages caused by using a base other than those specified.

Installing the Monitor Driver (Automatic)

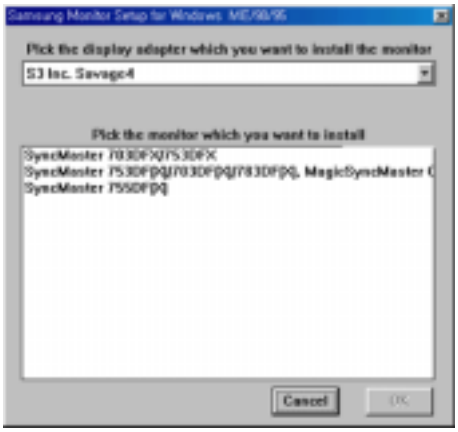
When prompted by the operating system for the monitor driver, insert the CD-ROM included with this monitor. Driver installation is slightly different from one operating system to another. Follow the directions appropriate for the operating system you have.

Prepare a blank disk and download the driver program file at the Internet web site shown here.

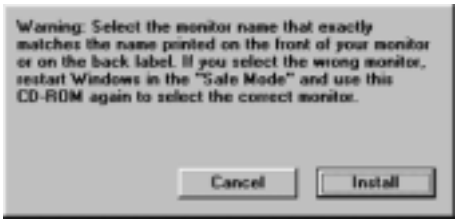
- Internet web site : http://www.samsung.com (Worldwide)
  http://www.samsung.com/monitor (USA)
  http://www.sec.co.kr/monitor (Korea)
  http://www.samsungmonitor.com.cn/ (China)

Windows ME

1. Insert CD into the CD-ROM drive.
2. Click **"Windows ME Driver"**.
3. Choose your monitor model in the model list, then click the **"OK"** button.


Pick the display adapter which you want to install the monitor
S3 Inc. Savage4
Pick the monitor which you want to install
Cancel

4. Click the **"Install"** button in the **"Warning"** window.

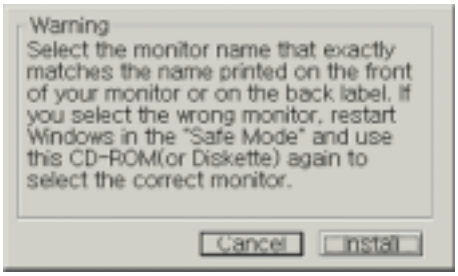

Warning: Select the monitor name that exactly matches the name printed on the front of your monitor or on the back label. If you select the wrong monitor, restart Windows in the "Safe Mode" and use this CD-ROM again to select the correct monitor.
Cancel
Install

5. Monitor driver installation is completed.

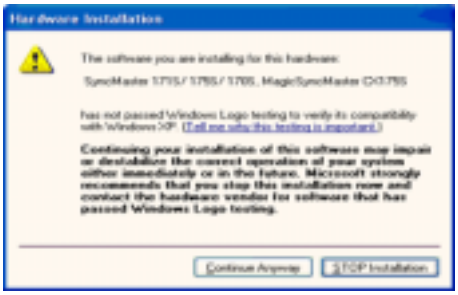
Windows XP/2000

1. Insert CD into the CD-ROM drive.
2. Click **"Windows XP/2000 Driver"**
3. Choose your monitor model in the model list, then click the **"OK"** button.

4. Click the "**Install**" button in the "**Warning**" window.


Warning
Select the monitor name that exactly matches the name printed on the front of your monitor or on the back label. If you select the wrong monitor, restart Windows in the "Safe Mode" and use this CD-ROM(or Diskette) again to select the correct monitor.
Cancel
Install

5. If you can see following message window, then click the **"Continue Anyway"** button. Then click **"OK"** button.



This monitor driver is under certified MS logo and this installation doesn't damage your system.The certified driver will be posted on Samsung Monitor homepage. http://www.samsung.com.

6. Monitor driver installation is completed.

Installing the Monitor Driver (Manual)

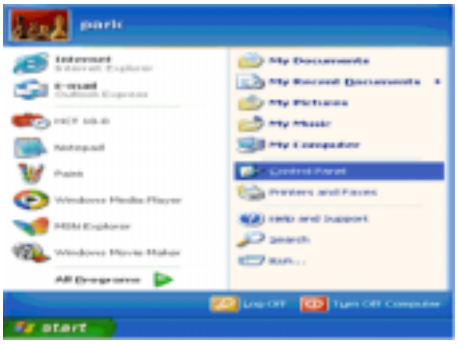
When prompted by the operating system for the monitor driver, insert the CD-ROM included with this monitor. Driver installation is slightly different from one operating system to another. Follow the directions appropriate for the operating system you have.

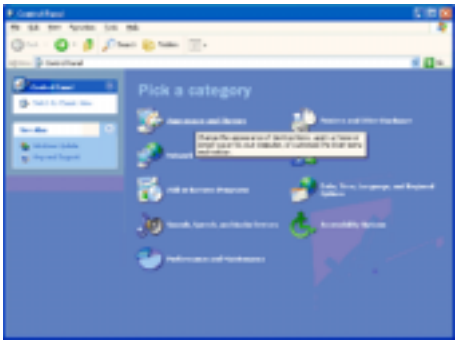
Prepare a blank disk and download the driver program file at the Internet web site shown here.

- Internet web site : http://www.samsung.com (Worldwide)
  http://www.samsung.com/monitor (USA)
  http://www.sec.co.kr/monitor (Korea)
  http://www.samsungmonitor.com.cn/ (China)

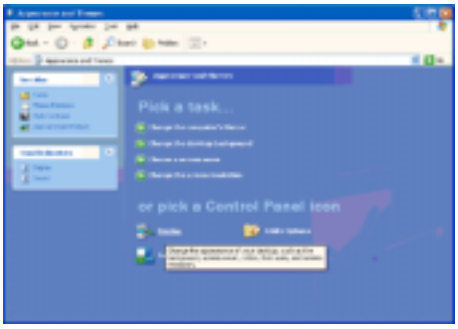
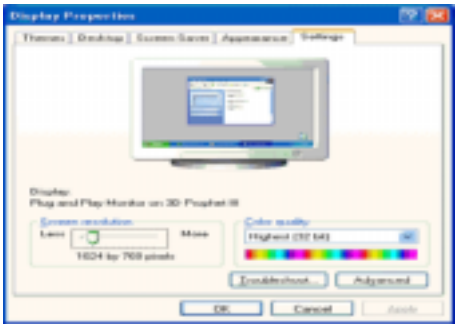
Microsoft® Windows® XP Operating System

1. Insert CD into the CD-ROM driver.
2. Click "**Start**" —> "**Control Panel**" then click the "**Appearance and Themes**" icon.

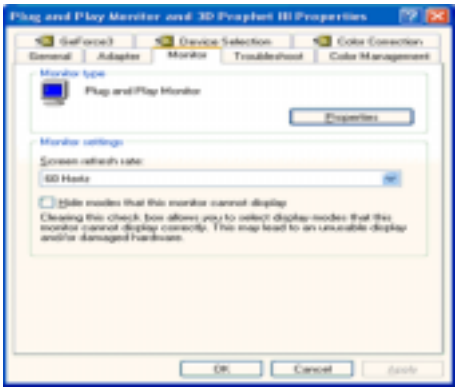
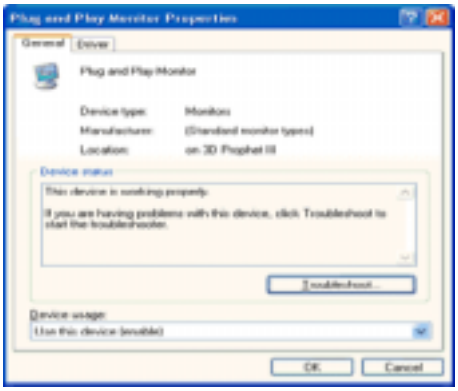




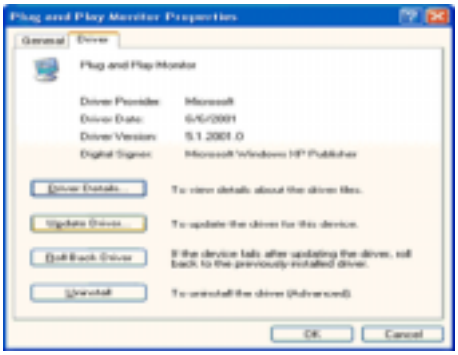
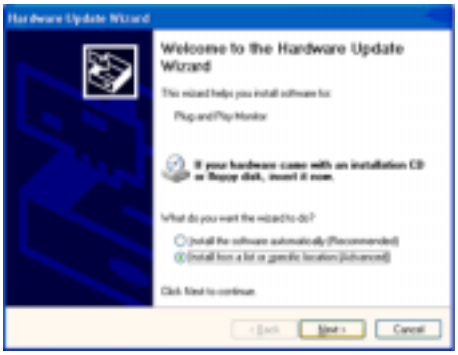
3. Click "**Display**" icon and choose the "**Settings**" tab then click "**Advanced..**".

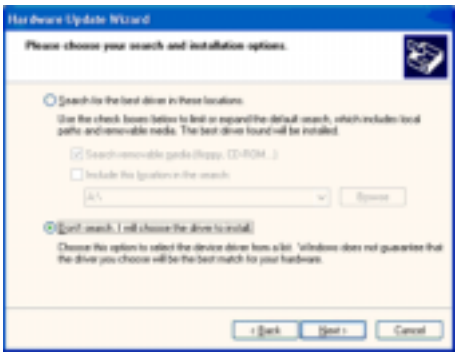
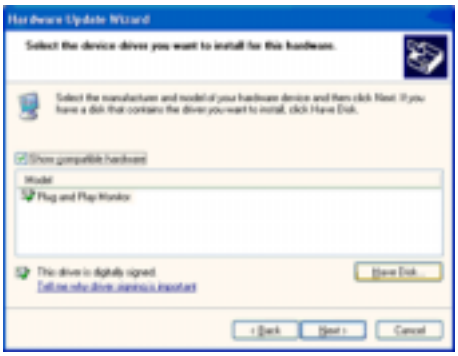
4. Click the "**Properties**" button on the "**Monitor**" tab and select "**Driver**" tab.

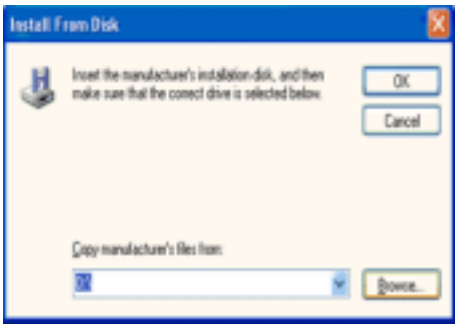
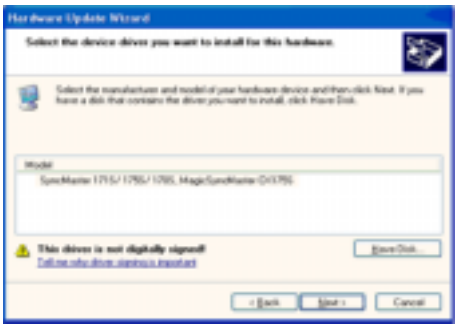
5. Click "**Update Driver..**" and select "**Install from a list or..**" then click "**Next**" button.

6. Select "**Don't search ,I will..**" then click "**Next**" and then click "**Have disk**".

7. Click the "**Browse**" button then choose A:(D:\Driver) and choose your monitor model in the model list and click the "**Next**" button.

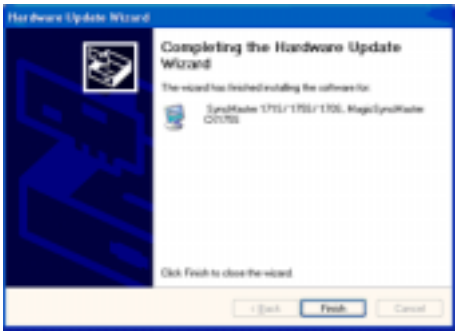

Install From Disk
Insert the manufacturer's installation disk, and then make sure that the correct drive is selected below.
OK
Cancel
Copy manufacturer's files from:
Browse...

Hardware Update Wizard
Select the device driver you want to install for this hardware.
This driver is not digitally signed!

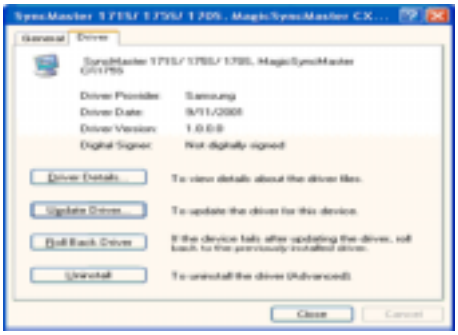
8. If you can see following message window, then click the "**Continue Anyway**" button. Then click "**OK**" button.

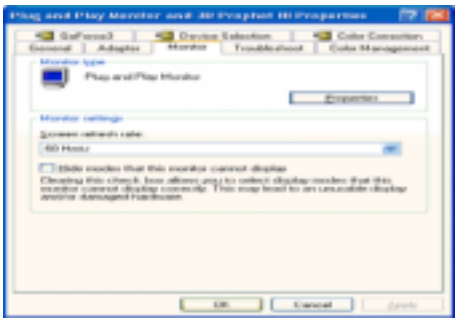
Hardware Installation
The software you are installing for this hardware:
has not passed Windows Logo testing to verify its compatibility with Windows XP. (Tell me why this testing is important.)
Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the hardware vendor for software that has passed Windows Logo testing.
Continue Anyway
STOP Installation

This monitor driver is under certified MS logo and this installation doesn't damage your system.The certified driver will be posted on Samsung Monitor homepage.
http://www.samsung.com

9. Click the "**Close**" button, then click "**OK**" button continually.







10. Monitor driver installation is completed.

Microsoft® Windows® 2000 Operating System

When you can see "Digital Signature Not Found" on your monitor, follow these steps.

1. Choose "**OK**" button on the "**Insert disk**" window.
2. Click the "**Browse**" button on the "**File Needed**" window.
3. Choose A:(D:\Driver) then click the "Open" button and then click "**OK**" button.

How to install

1. Click "**Start**" , "**Setting**" , "**Control Panel**".

2. Double click the "**Display**" Icon.
3. Choose the "**Settings**" tab and then click "**Advanced..**".
4. Choose "**Monitor**".
   Case1: If the "Properties" button is inactive, it means your monitor is properly configured. Please stop installation
   Case2: If the "Properties" button is active, click the "Properties" button then follow next steps continually.
5. Click "**Driver**" and then click on "**Update Driver..**" then click on the "Next" button.
6. Choose "**Display a list of the known drivers for this device so that I can choose a specific driver**" then click "**Next**" and then click "**Have disk**".
7. Click the "**Browse**" button then choose A:(D:\Driver).
8. Click the "**Open**" button, then click "**OK**" button.
9. Choose your monitor model and click the "**Next**" button then click "**Next**" button.
10. Click the "**Finish**" button then the "**Close**" button.

If you can see the "**Digital Signature Not Found**" window then click the "**Yes**"button. And click the "**Finish**" button then the "**Close**" button.

Microsoft® Windows® Millennium Operating System

1. Click "**Start**" , "**Setting**" , "**Control Panel**".
2. Double click "**Display**" icon.
3. Select the "**Settings**" tab and click "**Advanced Properties**" button.
4. Select the "**Monitor**" tab.
5. Click the "**Change**" button in the "**Monitor Type**" area.
6. Choose "**Specify the location of the driver**".
7. Choose "**Display a list of all the driver in a specific location..**" then click "**Next**" button.
8. Click the "**Have Disk**" button
9. Specify A:\(D:\driver) then click "**OK**" button.
10. Select "**Show all devices**" and choose the monitor that corresponds to the one you connected to your computer and click "**OK**".
11. Continue choosing "**Close**" button and "**OK**" button until you close the Display Properties dialogue box.

Microsoft® Windows® NT Operating System

1. Click **Start**, **Settings**, **Control Panel**, and then double-click **Display** icon.
2. In Display Registration Information window, click Settings Tab and then click **All Display Modes**.
3. Select a mode that you wish to use (Resolution, Number of colors and Vertical frequency) and then click **OK**.
4. Click **Apply** button if you see the screen working normally after clicking **Test**. If the screen is not normal, change to a different mode (lower mode of resolution, colors or frequency).

If there is no Mode at **All Display Modes**, select the level of resolution and vertical frequency by referring to the Preset Timing Modes in the user guide.

Linux Operating System

To execute X-Window, you need to make the X86Config file, which is a type of system setting file.

1. Press Enter at the first and the second screen after executing the X86Config file.
2. The third screen is for **setting your mouse**.
3. Set a mouse for your computer.
4. The next screen is for **selecting a keyboard**.
5. Set a Keyboard for your computer.
6. The next screen is for **setting your monitor**.
7. First of all, set a **horizontal frequency** for your monitor. (You can enter the frequency directly.)
8. Set a **vertical frequency** for your monitor. (You can enter the frequency directly.)
9. Enter the **model name of your monitor**. This information will not affect the actual execution of X-Window.
10. You have **finished** setting up your monitor.
    Execute X-Window after setting other requested hardware.

Natural Color

Natural Color Software Program

One of the recent problems in using a computer is that the color of the images printed out by a printer or other images scanned by a scanner or a digital camera are not the same as those shown on the monitor.
The Natural Color S/W is the very solution for this problem. It is a color administration system developed by Samsung Electronics in association with Korea Electronics & Telecommunications Research Institute (ETRI).
This system is available only for Samsung monitors and makes the color of the images on the monitor the same as the printed or scanned images.
For more information, refer to Help (F1) in the software program.

How to install the Natural Color software
Insert the CD included with the Samsung monitor into the CD-ROM Drive. Then, the initial screen of the program Natural Color will be executed. Click Natural Color on the initial screen to install the Natural Color software.
To install the program manually, insert the CD included with the Samsung monitor into the CD-ROM Drive, click the **[Start]** button of Windows and then select **[Execute]**.
Enter D:\color\eng\setup.exe and then press the **<Enter>** key.
(If the drive where the CD is inserted is not D:\, enter the applicable drive.)

How to delete the Natural Color software program
Select **"Setting" / 'Control Panel"** on the **"Start"** menu and then double-click **"Add/Delete a program"**.
Select Natural Color from the list and then click the **[Add/Delete]** button.

Input

Available Mode P : PC T : TV A : AV S : S-Video

OSD	Description	Play / Stop
Source List	Use to select PC, TV or other external input sources connected to the Monitor. Use to select the screen of your choice. **- The direct button on the remote control is 'SOURCE' button.** **1) PC** **2) TV** **3) AV** **4) S-Video**	
Edit Name	Name the input device connected to the input jacks to make your input source selection easier. **1) PC** **2) AV** **3) S-Video**	

Picture

PC Mode

Available Mode P : PC T : TV A : AV S : S-Video

OSD	Description	Play / Stop
MagicBright™	MagicBright™ is a new feature providing the optimum viewing environment depending on the contents of the image you are watching. Currently four different modes are available: Text, Internet, Entertain and Custom. Each mode has its own pre-configured brightness value. You can easily select one of four settings by simply pressing the MagicBright™ control button. **- The direct button on the remote control is ' ' button.** **1) Entertain** : High Brightness For watching motion pictures such as a DVD or VCD. **2) Internet** : Medium Brightness For working with a mixture of images such as text and graphics. **3) Text** : Normal Brightness For documentations or works involving heavy text. **4) Custom** Although the values are carefully chosen by our engineers, the pre-configured values may not be comfortable to your eyes depending on your taste. If this is the case, adjust the Brightness and Contrast by using the OSD menu.	
Custom	You can use the on-screen menus to change the contrast and brightness according to personal preference. **1) Contrast** : Adjust the Contrast. **2) Brightness** : Adjust the Brightness.	

	If you adjust picture using Custom function, MagicBright will turn to Custom mode.	
Colour Tone	The tone of the colour can be changed. The individual colour DTVs are also user adjustabls. **1) Cool** **2) Normal** **3) Warm** **4) Custom**	
Colour Control	Adjusts the individual R, G, B Colour Controls. **1) Red** **2) Green** **3) Blue**	
	If you adjust picture using Colour Control function, Colour Tone will turn to Custom mode.	
Image Lock	Image Lock is used to fine-tune and get the best image by removing noise that creates unstable images with jitter and shimmer. If satisfactory results are not obtained using the Fine adjustment, use the Coarse adjustment and then use Fine again. **1) Coarse** : Removes noise such as vertical stripes. Coarse adjustment may move the screen image area. You may relocate it to the center using the Horizontal Control menu. **2) Fine** : Removes noise such as horizontal stripes. If the noise persists even after Fine tuning, repeat it after adjusting the frequency (clock speed). **3) Sharpness** : Adjust the picture sharpness. **4) Position** : Adjusts the screen location horizontally and vertically.	1) Coarse 2) Fine 3) Sharpness 4) Position
Auto Adjustment	The values of Fine, Coarse, Position are adjusted automatically. If you change resolution in the control panel, Auto function will be executed. **- The direct button on the remote control is 'AUTO/EXIT' button.**	

TV / AV / S-Video Mode

Available Mode P : PC T : TV A : AV S : S-Video

OSD	Description	Play / Stop

Mode	The Monitor has four automatic picture settings ("Dynamic", "Standard", "Movie", and "Custom") that are preset at the factory. You can activate either Dynamic, Standard, Movie, or Custom. You can select "Custom" which automatically recalls your personalized picture settings. **- The direct button on the remote control is 'P.MODE' button.** **1) Dynamic** **2) Standard** **3) Movie** **4) Custom**	
Custom	You can use the on-screen menus to change the contrast and brightness according to personal preference. **1) Contrast** : Adjusts the contrast. **2) Brightness** : Adjusts the brightness. **3) Sharpness** : Adjust the picture sharpness. **4) Colour** : Adjust the picture colour.	
Colour Tone	The tone of the colour can be changed. The individual colour components are also user adjustables. **1) Cool2** **2) Cool1** **3) Normal** **4) Warm1** **5) Warm2**	

Sound

Available Mode P : PC T : TV A : AV S : S-Video

OSD	Description	Play / Stop
Mode	The Monitor has a built-in high fidelity stereo amplifier. **- The direct button on the remote control is 'S.MODE' button.** **1) Standard** : Choose Standard for the standard factory settings. **2) Music** : Choose Music when watching music videos or concerts. **3) Movie** : Choose Movie when viewing movies. **4) Speech** : Choose Speech when watching a show that is mostly dialogue (i.e., news). **5) Custom** : Choose Custom if you want to adjust the settings according to personal preference.	
Custom	The sound settings can be adjusted to suit your personal preference. **1) Bass** : Emphasize low frequency audio. **2) Treble** : Emphasize high frequency audio. **3) Balance** : Allows you to adjust the sound balance between the left and right speakers. **You can hear the sound even when the sound value is set to 0.**	
Auto Volume	Reduces the differences in volume level among broadcasters. **Off** **On**	

Channel

Available Mode P : PC T : TV A : AV S : S-Video

OSD	Description	Play / Stop
Country	Select the country in which the product is being used before you use the Auto Store feature. If you do not see your country in the list, select Others. **1) Australia** **2) China** **3) Hong Kong** **4) NZL/Indonesia** **5) Singapore** **6) Others**	
Auto Store	You can scan the frequency ranges available on your television in your area and store all the channels found automatically.	
Manual Store	You can scan the frequency ranges available on your television in your area and store all the channels found manually. **1) Programme** : Inputting the appropriate program number on the screen. **2) Colour System**: Adjust repeatedly until the colour is of the best quality. (Auto <-> PAL <-> SECAM <-> NTSC4.43 <-> NTSC3.58) **3) Sound System**: Adjust repeatedly until the sound is of the best quality. (BG <-> DK <-> I <-> M) **4) Channel** : Choosing the air channel through the adjustment of up/down under the current frequency. **5) Search**: The tuner scans the frequency range until the first channel or the channel that you selected is received on your screen. **6) Store** : It's used to restore the number user inputs.	
Add/Delete	Adds or deletes channels from the memory.	
Sort	It's used to exchange the numbers of two channels.	
Name	If channel name information is broadcast when you store the channels either manually or automatically, the names are assigned to the channels directly. You can however change these names or assign new names as required.	
Fine Tune	Due to weak signals or an incorrect antenna configuration, some of the channels may not be tuned correctly.	

Setup

Available Mode P : PC T : TV A : AV S : S-Video

OSD	Description	Play / Stop
Language	You can choose one of 2 languages. 1) 中國語 (Simple Chinese) 2) English **Note :** The language chosen affects only the language of the OSD. It has no effect on any software running on the computer.	
Sleep Timer	Use to set the Monitor to be turned off automatically in certain minutes. **1) Off 2) 30 3) 60 4) 90 5) 120 6) 150 7) 180**	
Transparency	Changes the opaqueness of the background of the OSD. **1) High** **2) Medium** **3) Low** **4) Opaque**	
Blue Screen	If no signal is being received or the signal is very weak, a blue screen automatically replaces the noisy picture background. If you wish to continue viewing the poor picture, you must set the "Blue screen" mode to "Off". **Off** **On**	
Reset	Picture parameters are replaced with the factory default values. **1) Image Reset** **2) Colour Reset**	1) Image Reset 2) Colour Reset P

Self-Test Feature Check

Check the following items yourself before calling for service. Contact the service center for problems that you cannot solve by yourself.

Self-Test Feature Check | Not Optimum Mode | Display Adapter Driver
Maintenance and Cleaning | Symptoms & Recommended Actions

1. Self-Test Feature Check

Your monitor provides a self test feature that allows you to check whether your monitor is functioning properly.

1. Turn off both your computer and the monitor.
2. Unplug the video cable from the back of the computer.
3. Turn on the monitor.

   The figure shown below ("Check Signal Cable") appears on a black background when the monitor is in its normal working condition though it does not sense any video signal: While in the Self-Test mode, the LED power indicator remains green and the figure moves around on the screen.

4. Turn off your monitor and reconnect the video cable; then turn on both your computer and the monitor.

If your monitor screen remains blank after using the previous procedure, check your video controller and computer system; **your monitor is functioning properly**.

2. Not Optimum Mode

1. When the vertical frequency is between 76 and 85hz or the resolution is UXGA (1600x1200), the following message is displayed.
   This notifies you that the screen can be viewed for a minute. Thereafter, you cannot view the screen any longer and are required to switch to optimal mode.

2. When the vertical frequency is more than 86hz, nothing appears on the screen but the following message. In this case, reboot the system in safe mode and change the display settings.

Refer to Specifications > Preset Timing Modes for the resolutions or frequencies that are supported by the monitor.

Contact the computer dealer or manufacturer for information on Safe Mode Booting.

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3. Display Adapter Driver

Display adapter refers to the computer video card driver.
If the adapter is not properly set, you cannot adjust resolution, frequency or color and you cannot install the monitor driver.

1. Checking Adapter Driver
   Click Start → Settings → Control Panel → Display → Settings → Advanced → Adapter.
   If "Default" or a wrong product model is indicated, it means that the adapter driver is not properly installed. Install the adapter driver again according to the information provided by the computer or video card manufacturers.

2. Installing Adapter Driver

   The instructions given below are for general circumstances.
   For specific issues, contact the relevant computer or video card manufacturers.

   1) Click Start → Settings → Control Panel → Display → Settings → Advanced → Adapter → Update Driver → Next → Display a list of the known drivers for this device so that I can choose a specific driver → Next → Have Disk (Insert Video Card Driver diskette) → OK → Next → Next → Finish.
   2) In case you have Adapter Driver Setup file on your computer:
      Run Setup.exe or Install.exe, which is found in the Adapter Driver Setup file.

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4. Maintenance and Cleaning

1. Maintaining the Monitor Case.
   Clean with a soft cloth after disconnecting the power cord.

- Do not use benzene, thinner or other flammable substances, or a wet cloth.

2. Maintaining the Flat Panel Display Screen.
   Clean with a soft cloth (cotton flannel) smoothly.

- Never use acetone, benzene or thinner.
  (They may cause flaws or deformation of the screen surface.)
- We recommend a Samsung cleansing agent is used to prevent damage to the screen.
- The user will be required to pay costs and related expenses for repair of damages caused by him/her.

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5. Symptoms and Recommended Actions

A monitor recreates visual signals received from the computer. Therefore, if there is trouble with the computer or the video card, this can cause the monitor to become blank, have poor coloring, noise, unavailable video mode, etc. In this case, first check the source of the problem, and then contact the service center or your dealer.

1. Check if the power cord and the video cables are properly connected to the computer.
2. Check if the computer beeps more than 3 times when booting.
   (If it does, request an after-service for the main board of the computer.)
3. If you installed a new video card or if you assembled the PC, check if you installed the adapter(video) driver and the monitor driver.
4. Check if the scanning ratio of the video screen is set at 60Hz.
   (The screen refresh rate must be set within in a range of 56~75hz.)
5. If you have problems in installing the adapter (video) driver, boot the computer in Safe Mode, remove the Display Adapter at the "**Control Panel**, **System**, **Device Administrator**" and then reboot the computer to reinstall the adapter (video) driver.

The following table lists possible problems and their solutions. Before calling for service, check the information in this section to see if you can remedy any problems yourself. If you do need assistance, please call the phone number on the Information section or contact your dealer.

Installation | Screen | Audio | Remote Control

Check List

1. Problems related to Installation

Problems related to the monitor installation and their solutions are listed.

	Problems	Solutions
PC	**It appears the PC does not function normally.**	• Check if the Display Adapter Driver (VGA Driver) is properly installed. (Refer to Installing Driver)
	The monitor screen flickers.	• Check if the signal cable between the computer and the monitor is securely connected and tightened. (Refer to Connecting to a Computer)
TV	**TV screen is blurred or shows noise signals.**	• Check if the TV antenna connector is securely connected to the external antenna. (Refer to Connecting TV)
	TV signal is not received	• Check "Channel system" and make sure you choose the correct channel system. (Refer to the Channel System) • Select "Auto Store" to configure the channel system automatically. (Refer to the Auto Store)

2. Problems related to Screen

Problems related to the monitor screen and their solutions are listed.

Problems	Solutions
Screen is blank and power indicator is off	• Ensure that the power cord is firmly connected and the LCD monitor is on. (Refer to the Connecting the Monitor)
"Check Signal Cable" message	• Ensure that the signal cable is firmly connected to the PC or video sources. (Refer to the Connecting the Monitor) • Ensure that the PC or video sources are turned on.
"Not Optimum Mode" message	• Check the maximum resolution and the frequency of the video adapter. • Compare these values with the data in the Preset Timing Modes Chart.
Picture rolls vertically.	• Check if the signal cable is securely connected. Connect it again securely. (Refer to Connecting to a Computer)
Image is not clear. Picture is blurred.	• Run Frequency Coarse and Fine tuning. • Turn on again after removing all accessories (video extension cable, etc.) • Set resolution and frequency to the recommended ranges.
Picture image is unstable and vibrates.	• Check if the resolution and frequency set for the computer video card falls in the range supported by the monitor. If not, reset them referring to the current Information under the monitor menu and Preset Timing Modes.
Ghost images are shown in the picture.	

The image is too light or too dark	• Adjust the Brightness and Contrast. (Refer to the Brightness, Contrast)
Screen color is inconsistent.	• Adjust color using Color Control under OSD Picture menu.
Color image is distorted with dark shadows.	
White color is poor.	
Power Indicator blinks green.	• The monitor is using its power management system. • Press any key on the keyboard
The screen is blank and is blinking.	• If you see the "TEST GOOD" message on the screen when you press the MENU button, check the cable connection between the monitor and the computer to ensure that the connector is properly connected.

3. Problems related to Audio

Problems related to audio signals and their solutions are listed below.

Problems	Solutions
No sound	• Ensure that the audio cable is firmly connected to both the audio-in port on your monitor and the audio-out port on your sound card. (Refer to the Connecting the Monitor) • Check the volume level. (Refer to the Volume)
Sound level is too low.	• Check the volume level. (Refer to the Volume) • If the volume is still too low after turning the control to its maximum, check the volume control on the computer sound card or software program.
Sound is too high pitched or too low pitched	• Adjust the Treble and Bass to appropriate level.

4. Problems related to Remote Control

Problems related to the remote control and their solutions are listed.

Problems	Items to check
The remote control buttons do not respond.	• Check the battery polarities (+/-). • Check if the batteries have been exhausted. • Check if the power is on. • Check if the power cord is securely connected. • Check if a special fluorescent or neon lamp is on in the vicinity.

Q & A

Question	Answer
How can I change the frequency?	• Frequency can be changed by reconfiguring the video card. • Note that video card support can vary, depending on the version of the driver used. (Refer to the computer or the video card manual for details.)
How can I adjust the resolution?	• Windows XP : Set the resolution at the Control Panel→Appearance and

	Themes→Display→Settings. • Windows ME/2000 : Set the resolution at the Control Panel→Display→Settings. * Contact the video card manufacturer for details.
How can I set the Power Saving function?	• Windows XP : Set the resolution at the Control Panel→Appearance and Themes→Display→Screen Saver . Set the function at BIOS-SETUP of the computer. (Refer to Windows/Computer Manual). • Windows ME/2000 : Set the resolution at the Control Panel→Display→Screen Saver. Set the function at BIOS-SETUP of the computer. (Refer to Windows/Computer Manual).
How can I clean the outer case/LCD Panel?	• Disconnect the power cord and then clean the monitor with a soft cloth, using either a cleaning solution or plain water. • Do not leave any remains of the detergent nor scratch the case. Do not allow any water to go inside the monitor.

General

General	
Model Name	SyncMaster 710MP
LCD Panel	
Size	17.0 inch diagonal
Display area	337.92mm (H) x 270.336mm (V)
Pixel Pitch	0.264mm (H) x 0.264mm (V)
Type	a-si TFT active matrix
Synchronization	
Horizontal	30 ~ 81kHz
Vertical	56 ~ 75Hz
Display Color	
16.194.277 Colors	
Resolution	
Optimum resolution	SXGA 1280 x 1024@60Hz
Maximum resolution	SXGA 1280 x 1024@75Hz
Input Signal, Terminated	
RGB Analog, Separate H / V sync, Composite , 0.7Vp-p Positive at 75 ohm, TTL level positive or negative	
TV / Video	
Color system	PAL / SECAM / NTSC4.43
Sound system	B/G, I, D/K
Maximum Pixel Clock	
135 MHz	
Power Supply	
AC 100 ~ 240 VAC (+/- 10%), 60/50 Hz ± 3Hz	
Signal Cable	
15pin to 15pin D-sub cable, Detachable	
Power Consumption	

Less than 43W	
Power Saving	
Less than 2W	
Dimensions (WxDxH)/ Weight	
389 x 206 x 402.5 mm / 15.3 x 8.1 x 15.8 inch 389 x 63 x 386mm / 15.3 x 2.5 x 15.2 inch (Without Stand)	
VESA Mounting Interface	
75mm x 75mm	
Environmental considerations	
Operating	Temperature: 50°F to 104°F(10°C to 40°C) Humidity: 10% to 80%, Non-condensing
Storage	Temperature: -4°F to 113°F (-20°C to 45°C) Humidity: 5% to 95%, Non-condensing
Plug and Play Capability	
This monitor can be installed on any Plug & Play compatible system. Interaction of the monitor and computer systems will provide the best operating conditions and monitor settings. In most cases, monitor installation will proceed automatically, unless the user wishes to select alternate settings.	

Design and specifications are subject to change without prior notice.

PowerSaver

This monitor has a built-in power management system called PowerSaver. This system saves energy by switching your monitor into a low-power mode when it has not been used for a certain amount of time. The monitor automatically returns to normal operation when you press a key on the keyboard. For energy conservation, turn your monitor OFF when it is not needed, or when leaving it unattended for long periods. The PowerSaver system operates with a VESA DPMS compliant video card installed in your computer. Use a software utility installed on your computer to set up this feature.

State	Normal Operation	Power saving mode EPA/ENERGY 2000	Power off (Power-switch off)
Power Indicator	Green	Green Blinking	Black
Power Consumption	Less than 43W (on mode)	Less than 2W (Off-mode)	Less than 1W (115Vac)

This monitor is EPA ENERGY STAR® compliant and ENERGY2000 compliant when used with a computer equipped with VESA DPMS functionality.
As an ENERGY STAR® Partner, SAMSUNG has determined that this product meets the ENERGY STAR® guidelines for energy efficiency.

Preset Timing Modes

If the signal transferred from the computer is the same as the following Preset Timing Modes, the screen will be adjusted automatically. However, if the signal differs, the screen may go blank while the power LED is on. Refer to the video card manual and adjust the screen as follows.

Table 1. Preset Timing Modes

Display Mode	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Clock (MHz)	Sync Polarity (H/V)
MAC, 640 x 480	35.000	66.667	30.240	-/-
MAC, 832 x 624	49.726	74.551	57.284	-/-
IBM, 640 x 350	31.469	70.086	25.175	+/-
IBM, 640 x 480	31.469	59.940	25.175	-/-
IBM, 720 x 400	31.469	70.087	28.322	-/+
VESA, 640 x 480	37.500	75.000	31.500	-/-
VESA, 640 x 480	37.861	72.809	31.500	-/-
VESA, 800 x 600	35.156	56.250	36.000	+,-/+,-
VESA, 800 x 600	37.879	60.317	40.000	+/+
VESA, 800 x 600	46.875	75.000	49.500	+/+
VESA, 800 x 600	48.077	72.188	50.000	+/+
VESA, 1024 x 768	48.363	60.004	65.000	-/-
VESA, 1024 x 768	56.476	70.069	75.000	-/-
VESA, 1024 x 768	60.023	75.029	78.750	+/+
VESA, 1280 x 1024	63.981	60.020	108.00	+/+
VESA, 1280 x 1024	79.976	75.025	135.00	+/+
VESA, 1280 x 1024	81.129	76.106	135.00	-/-

Table 2. Broadcasting Systems
Note : According to broadcasting type in each country, you may not be able to select one.

Broadcasting Systems	NTSC				
	NTSC -M				
Countries	USA South Korea Japan Ecuador Mexico Guatemala Canada				
Broadcasting Systems	PAL				
	PAL-B/G	PAL-D/K	PAL-I	PAL-N	PAL-M
Countries	Italy Sweden Germany Norway Spain Israel Denmark Portugal Netherlands Austria Singapore Indonesia Australia	China North Korea Rumania	Ireland England South Africa Hongkong	Argentina Uruguay Paraguay	Brazil

Broadcasting Systems	SECAM			
	SECAM-B	SECAM-D	SECAM-K_1	SECAM-L
Countries	Iran Iraq Saudi arabia Syria Lebanon Egypt	Russia Hungary Bulgaria Poland		France

Horizontal Frequency

The time to scan one line connecting the right edge to the left edge of the screen horizontally is called Horizontal Cycle and the inverse number of the Horizontal Cycle is called Horizontal Frequency. Unit: kHz

Vertical Frequency

Like a fluorescent lamp, the screen has to repeat the same image many times per second to display an image to the user. The frequency of this repetition is called Vertical Frequency or Refresh Rate. Unit: Hz

Service

The address and phone number of the company can be changed without prior notice.

AUSTRALIA :
Samsung Electronics Australia Pty Ltd.
Customer Response Centre
7 Parkview Drive, Homebush Bay NSW 2127
Tel : 1300 362 603
http://www.samsung.com.au/

BRAZIL :
Samsung Eletronica da Amazonia Ltda.
R. Prof. Manoelito de Ornellas, 303, Terro B
Chacara Sto. Antonio, CEP : 04719-040
Sao Paulo, SP
SAC : 0800 124 421
http://www.samsung.com.br/

CANADA :
Samsung Electronics Canada Inc.
Samsung Customer Care
7037 Financial Drive
Mississauga, Ontario
L5N 6R3
1-800-SAMSUNG (1-800-726-7864)
http://www.samsung.ca/

CHILE :
SONDA S.A.
Teatinos 550, Santiago Centro, Santiago, Chile
Fono: 56-2-5605000 Fax: 56-2-5605353
56-2-800200211
http://www.sonda.com/
http://www.samsung.cl/

COLOMBIA :
Samsung Electronics Colombia
Cra 9 No 99A-02 Of. 106
Bogota, Colombia
Tel.: 9-800-112-112
Fax: (571) 618 - 2068
http://www.samsung-latin.com/
e-mail : soporte@samsung-latin.com

ESPAÑA :
Samsung Electronics Comercial Iberica, S.A.

Ciencies, 55-65 (Poligono Pedrosa) 08908
Hospitalet de Llobregat (Barcelona)
Tel. : (93) 261 67 00
Fax. : (93) 261 67 50
http://samsung.es/

- **FRANCE :**
SAMSUNG ELECTRONICS FRANCE Service
Paris Nord 2
66 rue des Vanesses
BP 50116 Villepinte
95950 Roissy CDG Cedex
Tel : 08 25 08 65 65
Fax : 01 48 63 06 38
http://www.samsungservices.com/

- **GERMANY :**
TELEPLAN Rhein-Main GmbH
Feldstr. 16
64331 Weiterstadt
T. 06151/957-1306
F. 06151/957-1732
* EURO 0.12/Min
http://www.samsung.de/

- **HUNGARY :**
Samsung Electronics Magyar Rt.
1039, Budapest, Lehel u. 15-17.
Tel: 36 1 453 1100
Fax: 36 1 453 1101
http://www.samsung.hu/

- **ITALY :**
Samsung Electronics Italia S.p.a.
Via C. Donat Cattin, 5
20063 Cernusco s/Naviglio (MI)
Servizio Clienti: 199.153.153
http://www.samsung-italia.com/

- **MÉXICO :**
SAMSUNG ELECTRONICS MÉXICO. S.A. de C.V.
Vía Lopez Portillo No. 6, Col. San Fco. Chilpan
Tultitlán, Estado de México, C.P. 54940
Tel: 01-55-5747-5100 / 01-800-726-7864
Fax: 01-55-5747-5202 / 01-800-849-1743
RFC: SEM950215S98
http://www.samsung.com.mx/

IMPORTADO POR: SAMSUNG ELECTRONICS MÉXICO. S.A. de C.V.
Vía Lopez Portillo No. 6, Col. San Fco. Chilpan
Tultitlán, Estado de México, C.P. 54940
Tel: 01-55-5747-5100 / 01-800-726-7864

EXPORTADO POR: Samsung Electronics CO.,LTD.
416, Mae tan-3dong, Yeongtong - gu,
Suwon City, Gyeonggi-do Korea

- **NETHERLANDS/BELGIUM/LUXEMBOURG :**
Samsung Electronics Benelux B. V.
Fleminglaan 12 2289 CP Rijiswijk, NEDERLANDS
Service and informatielijn ;
Belgium :0800-95214, http://www.samsung.be/
Netherlands : 0800-2295214, http://www.samsung.nl/

- **PANAMA :**
Samsung Electronics Latinoamerica(Z.L.) S.A.
Calle 50 Edificio Plaza Credicorp, Planta Baja
Panama
Tel. : (507) 210-1122, 210-1133
Tel : 800-3278(FAST)
http://www.samsung-latin.com/

PERU :
Servicio Integral Samsung
Av.Argentina 1790 Lima1. Peru
Tel: 51-1-336-8686
Fax: 51-1-336-8551
http://www.samsungperu.com/

PORTUGAL :
SAMSUNG ELECTRONICA PORTUGUESA S.A.
Rua Mário Dioniso, Nº2 - 1º Drt. 2795-140 LINDA-A-VELHA
Tel. 214 148 114/100 Fax. 214 148 133/128
Free Line 800 220 120
http://www.samsung.pt/

SOUTH AFRICA :
Samsung Electronics,5 Libertas Road, Somerset Office Park,
Bryanston Ext 16. Po Box 70006, Bryanston,2021, South Africa
Tel : 0027-11-549-1621
Fax : 0027-11-549-1629
http://www.samsung.co.za/

SWEDEN/DENMARK/NORWAY/FINLAND :
Samsung Electronics AB
Box 713
S-194 27 UPPLANDS VÄSBY
SVERIGE
Besöksadress : Johanneslundsvägen 4
Samsung support Sverige: 020-46 46 46
Samsung support Danmark : 8088-4646
Samsung support Norge: 8001-1800
Samsung support Finland: 0800-118001
Tel +46 8 590 966 00
Fax +46 8 590 966 50
http://www.samsung.se/

THAILAND :
HAI SAMSUNG Service Center
MPA COMPLEX BUILDING,1st-2nd Floor
175 SOI SUEKSA VIDHAYA SATHON SOI 12
SILOM ROAD ,SILOM,BANGRAK
BANGKOK 10500
TEL : 0-2635-2567
FAX : 0-2635-2556

UKRAINE :
SAMSUNG ELECTRONICS REPRESENTATIVE OFFICE IN UKRAINE
4 Glybochitska str.
Kiev, Ukraine
Tel. 8-044-4906878
Fax 8-044-4906887
Toll-free 8-800-502-0000
http://www.samsung.com.ua/

United Kingdom :
Samsung Electronics (UK) Ltd.
Samsung House, 225 Hook Rise South
Surbiton, Surrey KT6 7LD
Tel. : (0208) 391 0168
Fax. : (0208) 397 9949
< European Service Center & National Service >
Stafford Park 12 Telford, Shropshire, TF3 3BJ
Tel. : (0870) 242 0303
Fax. : (01952) 292 033
http://samsungservice.co.uk/

U.S.A. :
Samsung Electronics America
Service Division
400 Valley Road, Suite 201
Mount Arlington, NJ 07856
1-800-SAMSUNG (1-800-726-7864)
http://samsung.com/monitor/

Terms

Sync Signal

Sync (Synchronized) Signals refer to the standard signals that are required to display desired colors on the monitor. They are divided into Vertical and Horizontal Sync Signals. These signals display normal color images by the set resolution and frequency.

Types of Sync Signals

Separate	This is a scheme of transmitting individual vertical and horizontal sync signals to the monitor.
Composite	This is a scheme of combining vertical and horizontal sync signals into one composite signal and transmitting it to the monitor. The monitor displays the color signals by separating the composite signal into original color signals.

Dot Pitch

The image on a monitor is composed of red, green and blue dots. The closer the dots, the higher the resolution. The distance between two dots of the same color is called the 'Dot Pitch'. Unit: mm

Vertical Frequency

The screen must be redrawn several times per second in order to create and display an image for the user. The frequency of this repetition per second is called Vertical Frequency or Refresh Rate. Unit: Hz

Example: If the same light repeats itself 60 times per second, this is regarded as 60 Hz.

Horizontal Frequency

The time to scan one line connecting the right edge to the left edge of the screen horizontally is called Horizontal Cycle. The inverse number of the Horizontal Cycle is called Horizontal Frequency. Unit: kHz

Interlace and Non-Interlace Methods

Showing the horizontal lines of the screen from the top to the bottom in order is called the Non-Interlace method while showing odd lines and then even lines in turn is called the Interlace method. The Non-Interlace method is used for the majority of monitors to ensure a clear image. The Interlace method is the same as that used in TVs.

Plug & Play

This is a function that provides the best quality screen for the user by allowing the computer and the monitor to exchange information automatically. This monitor follows the international standard VESA DDC for the Plug & Play function.

DVD

A type of digital disk technology that takes up only the benefits of CD and LD, to implement a high resolution/quality, which enables the user to enjoy clearer images.

DTV Broadcasting (Digital TV Broadcasting)

An enhanced broadcasting technology to process digital video signals using a set-top box, which implements a high resolution and clearer digital images on the screen.

Resolution

The number of horizontal and vertical dots used to compose the screen image is called 'resolution'. This number shows the accuracy of the display. High resolution is good for performing multiple tasks as more image information can be shown on the screen.

Example: If the resolution is 1280 x 1024 , this means the screen is composed of 1280 horizontal dots (horizontal resolution) and 1024 vertical lines (vertical resolution).

A2

This system uses two carriers to transmit voice data. Countries such as South Korea and Germany use this system.

BTSC

Broadcast Television System Committee
The stereo broadcasting system that is used in most of the countries that have adopted the NTSC system, including the United States, Canada, Chile, Venezuela and Taiwan. It also refers to the

organization that has been organized to promote its development and management.

EIAJ
Electronic Industries Association of Japan.

RF Cable
A round signal cable generally used for TV antennas.

Satellite Broadcasting
Broadcasting service provided via satellite. Enables high picture quality and clear sound throughout the country regardless of the location of the viewer.

Sound Balance
Balances the levels of the sound coming from each speaker in televisions with two speakers.

Cable TV
Whereas the terrestrial broadcasting is delivered via frequency signals through the air, cable broadcasting is transmitted via a cable network. In order to view cable TV, one must purchase a cable receiver and hook it up to the cable network.

CATV
"CATV" refers to the broadcasting service offered at hotels, schools and other buildings through their own broadcasting system, apart from VHF or UHF broadcasting by terrestrial broadcasters. The CATV programs may include movies, entertainment and educational programs. (Different from cable TV.)

CATV can be viewed only within the area in which the CATV service is offered.

S-Video
Short for "Super Video." S-Video allows up to 800 lines of horizontal resolution, enabling high-quality video.

VHF/UHF
VHF indicates TV channels 2 to 13, and UHF indicates channels 14 through 69.

Channel Fine Tuning
This feature allows the viewer to fine-tune the TV channel to obtain the best viewing conditions. The Samsung LCD TV has both automatic and manual channel fine-tuning features to enable the viewer to adjust their desired settings.

External Device Input
External device input refers to video input from such external video device as VCR, camcorder and DVD player, separate from a TV broadcast.

LNA (Low Noise Amplifier)
This derives from artificial satellite technology that amplifies weak signals even in poor reception areas for sharper images.

Antenna Converter
A connection part that is used to link a wide antenna cable (feeder cable) to the TV.

English Caption (= Caption Setting)
A kind of language selection feature that provides English subtitles (caption) or character information services from broadcasting services (ex: AFKN) or video tapes (marked CC), and which are especially useful for studying English.

A2
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EIAJ
Electronic Industries Association of Japan.

For Better Display

1. Adjust computer resolution and screen injection rate (refresh rate) on computer as described below to enjoy the best quality of picture. You can have an uneven quality of picture in the screen if the best quality of picture is not provided in TFT-LCD.
   - Resolution: 1280 x 1024
   - Vertical frequency (refresh rate): 60 Hz
2. TFT LCD panel manufactured by using advanced semiconductor technology with precision of 1ppm (one millionth) above is used for this product. But the pixels of RED, GREEN, BLUE and WHITE color seem to be bright sometimes or some of black pixels could be seen.
   This is not from bad quality and you can use it without uneasiness.
   - For example, the number of TFT LCD sub pixels that is contained in this product are 3,932,160.
3. When you clean the monitor and the panel outside, please apply the recommended small amount of cleaner by using soft and dry cloth and polish it. Let LCD area not to be forced but to be scrubbed out softly.
   If excessive force is applied, you can have a stain on it.
4. If you are not satisfied with the quality of picture, you can get better quality of picture by executing "auto adjustment function" in display screen that is appeared as window termination button is pressed.
   If there's still noise after automatic adjustment, use FINE/COARSE adjustment function.
5. If you view a fixed screen for an extended period of time, residual image or blurriness may appear. Change the mode to energy save or set a screensaver to moving picture when you need to be away from the monitor for an extended period of time.

Authority

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BBE High Definition Sound is the core sound enhancement technology licensed by BBE Sound and featured in the BBE Sonic Maximizer range of professional audio signal processors.

FCC Information | IC Compliance Notice | MPR II Compliance
European Notice (Europe only) | PCT Notice | VCCI Notice |
TCO'95-Ecological requirements for personal computers (TCO'95 applied model only)
TCO'99-Ecological requirements for personal computers (TCO'99 applied model only)
TCO'03-Ecological requirements for personal computers (TCO'03 applied model only)
TCO'03 Recycling Information (TCO'03 applied model only)
Medical Requirement
Mercury Statement (LCD Monitor, LCD TV, DLP Projection TV, Projector for USA only)

FCC Information

User Instructions
The Federal Communications Commission Radio Frequency Interference Statement includes the following warning:

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television receptions, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

User Information
Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. If necessary, consult your dealer or an experienced radio/television technician for additional suggestions. You may find the booklet called How to Identify and Resolve Radio/TV Interference Problems helpful. This booklet was prepared by the Federal Communications Commission. It is available from the U.S. Government Printing Office, Washington, DC 20402, Stock Number 004-000-00345-4.

The party responsible for product compliance:
SAMSUNG ELECTRONICS CO., LTD
America QA Lab of Samsung
3351 Michelson Drive,
Suite #290, Irvine, CA92612 USA
Tel) 949-975-7310
Fax) 949-922-8301

Warning
User must use shielded signal interface cables to maintain FCC compliance for the product.

Provided with this monitor is a detachable power supply cord with IEC320 style terminations. It may be suitable for connection to any UL Listed personal computer with similar configuration. Before making the connection, make sure the voltage rating of the computer convenience outlet is the same as the monitor and that the ampere rating of the computer convenience outlet is equal to or exceeds the monitor voltage rating.
For 120 Volt applications, use only UL Listed detachable power cord with NEMA configuration 5-15P type (parallel blades) plug cap. For 240 Volt applications use only UL Listed Detachable power supply cord with NEMA configuration 6-15P type (tandem blades) plug cap.

Top

IC Compliance Notice

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations of ICES-003.

Cet appareil Numérique de classe B respecte toutes les exigences du Règlemont NMB-03 sur les équipements produisant des interférences au Canada.

Top

MPR II Compliance

This monitor complies with SWEDAC(MPR II) recommendations for reduced electric and magnetic fields.

European Notice(Europe Only)

Products with the CE marking comply with the EMC Directive(89/336/EEC), (92/31/EEC), (93/68/EEC) and the Low Voltage Directive (73/23/EEC) issued by the Commission of the European Community.
Compliance with these directives implies conformity to the following European Norms:

- EN55022:1998+A1:2000 - Radio Frequency Interference
- EN55024:1998 - Electromagnetic Immunity of Information Technology Equipment
- EN61000-3-2:1995+A1/A2:1998 - Power Line Harmonics
- EN61000-3-3:1995 - Voltage Fluctuations

PCT Notice

АЯ46

VCCI Notice

This is a Class B product based on the standard of the Voluntary Control Council for Interference by Information Technology Equipment (VCCI). If this is used near a radio or television receiver in a domestic environment, it may cause radio interference. Install and use the equipment according to the instruction manual.

TCO'95-Ecological requirements for personal computers (TCO'95 applied model only)

AB general requirements
AB2 Written Eco-document acompanying the products
Congratulations! You have just purchased a TCO'95 approved and labelled product! Your choice has provided you with a product developed for professional use. Your purchase has also contributed to reducing the burden on the environment and to the further development of environmentally-adapted electronic products.

Why do we have environmentally-labelled monitors?
In many countries, environmental labelling has become an established method for encouraging the adaptation of goods and services to the environment.The main problem as far as monitors and other electronic equipment are concerned is that environmentally harmful substances are used both in the products and during their manufacture. Since it has not been possible so far for the majority of electronic equipment to be recycled in a satisfactory way, most of these potentially damaging substances sooner or later enter Nature.

There are also other characteristics of a monitor, such as energy consumption levels, that are important from both the working and natural environment viewpoints. Since all types of

conventional electricity generation have a negative effect on the environment (acidic and climate-influencing emissions, radioactive waste, etc.) it is vital to conserve energy. Electronic equipment in offices consumes an enormous amount of energy, since it is often routinely left running continuously.

What does labelling involve?
This product meets the requirements for the TCO'95 scheme, which provides for international environmental labelling of monitors. The labelling scheme was developed as a joint effort by the TCO (The Swedish Confederation of Professional Employees), Naturskyddsforeningen (The Swedish Society for Nature Conservation) and NUTEK (The National Board for Industrial and Technical Development in Sweden).

The requirements cover a wide range of issues: environment, ergonomics, usability, emission of electrical and magnetic fields, energy consumption and electrical and fire safety.

The environmental demands concern among other things restrictions on the presence and use of heavy metals, brominated and chlorinated flame retardants, CFCs (freons), and chlorinated solvents. The product must be prepared for recycling and the manufacturer is obliged to have an environmental plan, which must be adhered to in each country where the company conducts its operations policy. The energy requirements include a demand that the monitor after a certain period of inactivity shall reduce its power consumption to a lower level, in one or more stages. The length of time to reactivate the monitor shall be reasonable for the user.

Labelled products must meet strict environmental demands, for example in respect of the reduction of electric and magnetic fields, along with physical and visual ergonomics and good usability.

TCO Development Unit 1996-11-29
On the page this folder you will find a brief summary of the environmental requirements met by this product.
The complere environmental criteria document may be ordered from:
TCO Development Unit
S-11494 Stockholm
Sweden
Fax: +46 8 782 92 07
E-mail (Internet): development@tco.se
Current information regarding TCO'95-approved and labelled products may also be obtained via the Internet, using the address:
http://www.tco-info.com/
TCO'95 is a co-operative project between(3 logos)

Environmental Requirements
Brominated flame retardants are present in printed circuit boards, cables, wires, casings and housings. In turn, they delay the spread of fire. Up to thirty percent of the plastic in a computer casing can consist of flame retardant substances. These are related to another group of environmental toxins, PCBs, which are suspected to give rise to similar harm, including reproductive damage in fish eating birds and mammals, due to the bioaccumulative processes. Flame retardants have been found in human blood and researchers fear that disturbances in foetus development may occur.
- TCO'95 demand requires that plastic components weighing more than 25 grams must not contain organically bound chlorine and bromine.

Lead
Lead can be found in picture tubes, display screens, solders and capacitors. Lead damages the nervous system and in higher doses, causes lead poisoning.

- TCO'95 requirement Permits the inclusion of lead since no replacement has yet been developed.

Cadmium
Cadmium is present in rechargeable batteries and in the colour generating layers of certain computer displays. Cadmium damages the nervous system and is toxic in high doses.

- TCO'95 requirement states that batteries may not contain more than 25 ppm (parts per million) of cadmium. The colour-generating layers of display screens must not contain any cadmium.

Mercury
Mercury is sometimes found in batteries, relays and switches. Mercury damages the nervous system and is toxic in high doses.

- TCO'95 requirement states that batteries may not contain more than 25 ppm (parts per million) of mercury. It also demands that no mercury is present in any of the electrical or electronics components concerned with the display unit.

CFCs (freons)
CFCs (freons) are sometimes used for washing printed circuit boards and in the manufacturing of expanded foam for packaging. CFCs break down ozone and thereby damage the ozone layer in the stratosphere, causing increased reception on Earth of ultraviolet light with consequent increased risks of skin cancer (malignant melanoma).

- The relevant TCO'95 requirement: Neither CFCs nor HCFCs may be used during the manufacturing of the product or its packaging.

TCO'99-Ecological requirements for personal computers (TCO'99 applied model only)

Congratulations!
You have just purchased a TCO'99 approved and labelled product! Your choice has provided you with a product developed for professional use. Your purchase has also contributed to reducing the burden on the environment and also to the further development of environmentally adapted electronics products.

This product meets the requirements for the TCO'99 scheme which provides for an international environmental and quality labelling labelling of personal computers. The labelling scheme was developed as a joint effort by the TCO(The Swedish Confederation of Professional Employees), Svenska Naturskyddsforeningen(The Swedish Society for Nature Conservation), Statens Energimyndighet(The Swedish National Energy Administration) and SEMKO AB.

The requirements cover a wide range of issuse: environment, ergonomics, usability, reduction of electric and magnetic fields, energy consumption and electrical safety.

Why do we have environmentally labelled computers?
In many countries, environmental labelling has become an established method for encouraging the adaptation of goods and services to the environment. The main problem, as far as computers and other electronics equipment are concerned, is that environmentally harmful substances are used both in the products and during their manufacture. Since it is not so far possible to satisfactorily recycle the majority of electronics equipment, most of these potentially damaging substances sooner or later enter nature.

There are also other characteristics of a computer, such as energy consumption levels, that are important from the viewpoints of both the work (internal) and natural (external) environments. Since all methods of electricity generation have a negative effect on the environment (e.g. acidic and climate-influencing emissions, radioactive waste), it is vital to save energy. Electronics equipment in offices is often left running continuously and thereby consumes a lot of energy.

What does labelling involve?
The environmental demands has been developed by Svenska Naturskyddsforeningen (The Swedish Society for Nature Conservation). These demands impose restrictions on the presence and use of heavy metals, brominated and chlorinated flame retardants, CFCs(freons) and chlorinated solvents, among other things. The product must be prepared for recycling and the manufacturer is obliged to have an environmental policy which must be adhered to in each country where the company implements its operational policy.

The energy requirements include a demand that the computer and/or display, after a certain period of inactivity, shall reduce its power consumption to a lower level in one or more stages. The length of time to reactivate the computer shall be reasonable for the user.

Below you will find a brief summary of the environmental requirements met by this product. The complete environmental criteria document may be ordered from:

TCO Development
SE-114 94 Stockholm, Sweden
Fax: +46 8 782 92 07
Email (Internet): development@tco.se

Current information regarding TCO'99 approved and labelled products may also be obtained via the Internet, using the address: http://www.tco-info.com/

Environmental requirements
Flame retardants
Flame retardants are present in printed circuit boards, cables, wires, casings and housings. Their purpose is to prevent, or at least to delay the spread of fire. Up to 30% of the plastic in a computer casing can consist of flame retardant substances. Most flame retardants contain bromine or chloride, and those flame retardants are chemically related to another group of environmental toxins, PCBs. Both the flame retardants containing bromine or chloride and the PCBs are suspected of giving rise to severe health effects, including reproductive damage in fish-eating birds and mammals, due to the bio-accumulative* processes. Flame retardants have been found in human blood and researchers fear that disturbances in foetus development may occur.

The relevant TCO'99 demand requires that plastic components weighing more than 25 grams must not contain flame retardants with organically bound bromine or chlorine. Flame retardants are allowed in the printed circuit boards since no substitutes are available.

Cadmium**
Cadmium is present in rechargeable batteries and in the colour-generating layers of certain computer displays. Cadmium damages the nervous system and is toxic in high doses. The relevant TCO'99 requirement states that batteries, the colour-generating layers of display screens and the electrical or electronics components must not contain any cadmium.

Mercury**
Mercury is sometimes found in batteries, relays and switches. It damages the nervous system and is toxic in high doses. The relevant TCO'99 requirement states that batteries may not contain any mercury. It also demands that mercury is not present in any of the electrical or electronics components associated with the labelled unit. There is however one exception. Mercury is, for the time being, permitted in the back light system of flat panel monitors as today there is no commercially available alternative. TCO aims on removing this exception when a Mercury free alternative is available.

CFCs (freons)
The relevant TCO'99 requirement states that neither CFCs nor HCFCs may be used during the manufacture and assembly of the product. CFCs (freons) are sometimes used for washing printed circuit boards. CFCs break down ozone and thereby damage the ozone layer in the stratosphere, causing increased reception on earth of ultraviolet light with e.g. increased risks of skin cancer (malignant melanoma) as a consequence.

Lead**
Lead can be found in picture tubes, display screens, solders and capacitors. Lead damages the nervous system and in higher doses, causes lead poisoning. The relevant TCO'99 requirement permits the inclusion of lead since no replacement has yet been developed.

top

TCO'03-Ecological requirements for personal computers (TCO'03 applied model only)

Congratulations!
The display you have just purchased carries the TCO'03 Displays label. This means that your display is designed, manufactured and tested according to some of the strictest quality and environmental requirements in the world. This makes for a high performance product, designed with the user in focus that also minimizes the impact on our natural environment.

Some of the features of the TCO'03 Display requirements:

Ergonomics
Good visual ergonomics and image quality in order to improve the working environment for the user and to reduce sight and strain problems. Important parameters are luminance, contrast, resolution, reflectance, colour rendition and image stability.

Energy
- Energy-saving mode after a certain time ?beneficial both for the user and the environment

- Electrical safety

Emissions

- Electromagnetic fields
- Noise emissions

Ecology

- The product must be prepared for recycling and the manufacturer must have a certified environmental management system such as EMAS or ISO 14 000
- Restrictions on
  - o chlorinated and brominated flame retardants and polymers
  - o heavy metals such as cadmium, mercury and lead.

The requirements included in this label have been developed by TCO Development in cooperation with scientists, experts, users as well as manufacturers all over the world. Since the end of the 1980s TCO has been involved in influencing the development of IT equipment in a more user-friendly direction. Our labelling system started with displays in 1992 and is now requested by users and IT-manufacturers all over the world.

For more information, Please visit
www.tcodevelopment.com

Top

TCO'03 Recycling Information (TCO'03 applied model only)

For recycling information for TCO'03 certified monitors, for the residents in the following countries, please contact the company corresponding to your region of residence. For those who reside in other countries, please contact a nearest local Samsung dealer for recycling information for the products to be treated in environmentally acceptable way.

	[U.S.A. Residents Only]	[European Residents Only]		
	U.S.A.	SWEDEN	NORWAY	GERMANY
COMPANY	Solid Waste Transfer & Recycling Inc	ELKRETSEN	Elektronikkretur AS	vfw AG
ADDRESS	442 Frelinghuysen Ave Newark, NJ 07114	ELKRETSEN Box 1357, 111 83 Stockholm Barnhusgatan 3, 4 tr.	6454 Etterstad 0602 Oslo Fyrstikkalln 3B	Max Plank Strasse 42 50858 Collogne Germany
TELEPHONE	973-565-0181	08-545 212 90	23 06 07 40	49 0 2234 9587 - 0
FAX	Fax: 973-565-9485	08-545 212 99	23 06 07 41	
E-MAIL	none	info@el-kretsen.se	adm@elektronikkretur.no	vfw.info@vfw-ag.de
HOME PAGE	http://www.bcua.org/Solid Waste_Disposal.htm	http://www.el-kretsen.se/	http://www.elretur.no/	

Top

Medical Requirement

Classifications:
In accordance with UL 2601-1/IEC 60601-1, the product is cssified as Continuous duty Class I equipment, which is not protected against ingress of liquids. The product is not suitable for use in the presence of a flammable anaesthetic mixture with air or with oxygen or nitrous oxide.

EMC
This equipment has been tested and found to comply with the limits for medical devices to the IEC 601-1-2:1994. These limits are designed to provide reasonable protection against harmful

interference in a typical medical installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to other devices in the vicinity. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to other devices, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving device.
- Increase the separation between the equipment.
- Connect the equipment into an outlet on a circuit different from that to which the other device(s) are connected.
- Consult the manufacturer or field service technician for help.

Video In / RS 232 / Video Out
Accessories equipment connected to the analog and digital interfaces must be certified to the respective IEC standards (i.e. IEC 950 for data processing equipment and IEC 601-1 for medical equipment.) Furthermore all configurations shall comply with the system standard IEC 601-1-1. Everybody who connects additional equipment to the signal input part or signal output part configures a medical system, and is therefore, responsible that the system complies with the requirements of the system standard IEC 601-1-1. If in doubt, consult the technical services department or your local representative.

Transport and Storage Limitations:
Temperature Range of -40°C to +70°C
Relative Humidity of 10 -95%, non-condensing

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* Bio-accumulative is defined as substances which accumulate within living organisms.
** Lead, Cadmium and Mercury are heavy metals which are Bio-accumulative.

Mercury Statement (LCD Monitor, LCD TV, DLP Projection TV, Projector for USA only)

LAMP(S) INSIDE THIS PRODUCT CONTAIN MERCURY AND MUST BE RECYCLED OR DISPOSED OF ACCORDING TO LOCAL, STATE OR FEDERAL LAWS
For details see lamprecycle.org, eiae.org, or call 1-800-Samsung

PRODUCT INFORMATION (Image Retention Free)

LCD Monitors and TVs may have image retention when switching from one image to another especially after displaying a stationary image for a long time.
This guide is to demonstrate correct usage of LCD products in order to protect them from Image retention.

- **What is Image retention ?**
  During normal operation of a LCD panel, pixel image retention doesn't occur. However, if the same image is displayed for a long time, a slight difference in electric charge accumulates between the two electrodes which encase the liquid crystal. This may cause the liquid crystal to build up in a certain areas of the display. Thus, the previous image is retained when switching to a new video image. All display products, including LCD,are subject to image retention. This is not a product defect.

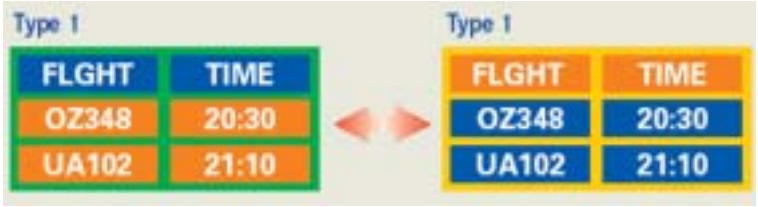
  Please follow the suggestions below to protect your LCD from image retention

- **Power Off, Screen Saver, or Power Save Mode**
  Ex)
  - Turn the power off when using a stationary pattern.
    - Turn the power off for 4 hours after 24 hours in use
    - Turn the power off for 2 hours after 12 hours in use
  - Use a Screen saver if possible
    - Screen saver in one color or a moving image is recommended.
  - Set the Monitor to power off with the PC Display Properties Power Scheme.

- **Suggestions for specific applications**
  Ex) Airports, Transit Stations, Stock Markets, Banks, and Controlling Systems
  We recommend that you follow set up of your display system program as below:

- **Display Information together with Logo or Moving image cycle.**
  Ex) Cycle : Display Information for 1 hour followed by a
  Display Logo or moving image for 1 minute.

- **Change the Color Information periodically (Use 2 different colors).**
  Ex) Rotate the Color Information with 2 colors every 30 minutes.



Avoid using a combination of characters and background color with large difference in luminance.
Avoid using Grey colors, which can cause Image retention easily.

- Avoid: Colors with big difference in luminance (Black & White, Grey)

Ex)

- Recommended settings: Bright colors with little difference in luminance

- Change the characters color and background color every 30 minutes

Ex)

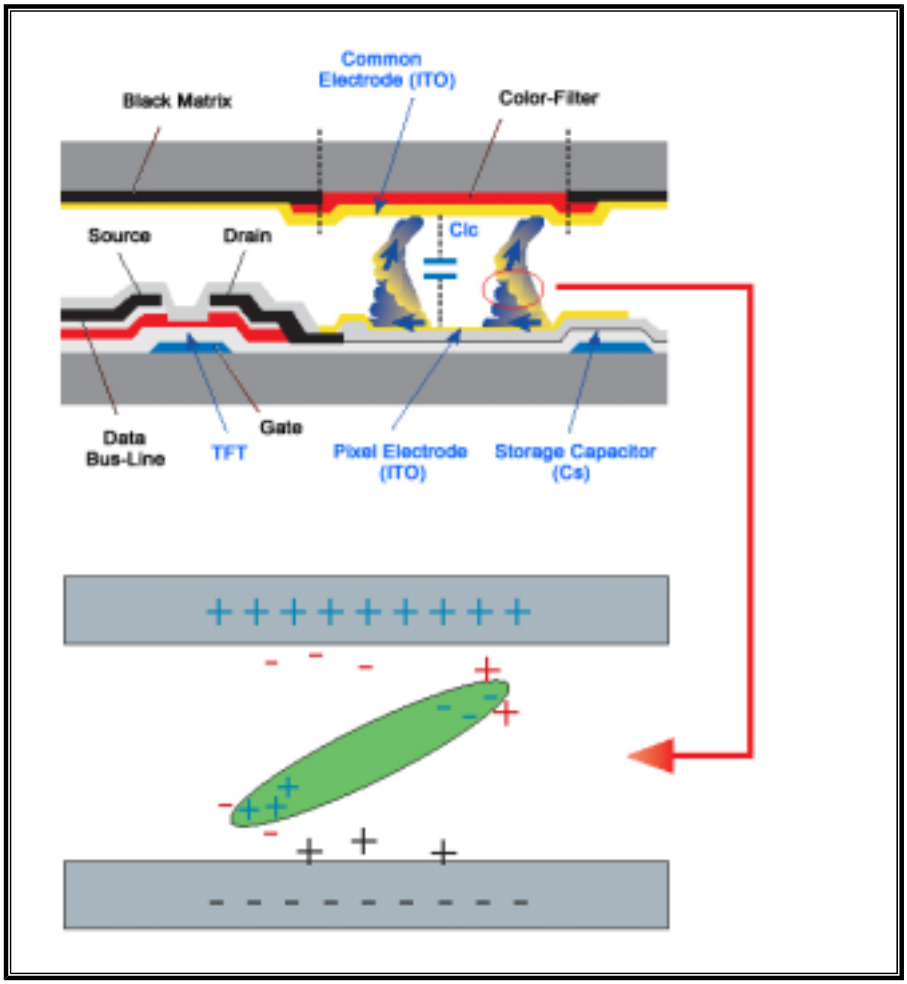
- Every 30 minutes, change the characters with movement.

Ex)

- **The best way to protect your monitor from Image retention is to set your PC or System to operate a Screen Saver program when you are not using it.**

  Image retention may not occur when a LCD panel is operated under normal conditions.

  Normal conditions are defined as continuously changing video patterns. When the LCD panel is operated for a long time with a fixed pattern (-over 12 hours-), there may be slight difference in voltage between electrodes that work the liquid crystal (LC) in a pixel. The voltage difference between electrodes increases with time, forcing the liquid crystal to lean. When this occurs, the previous image may be seen when the pattern is changed.
  To prevent this, the accumulated voltage difference must be decreased.



- Our LCD Monitor satisfies ISO13406-2 Pixel fault Class II